Notice of Allowability	Application No.	Applicant(s)	
	10/620,365	SNOOK ET AL.	
	Examiner	Art Unit	
	Igor Kershteyn	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.

2. ☒ The allowed claim(s) is/are *1-16*.

3. ☒ The drawings filed on *07/17/2003* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Reasons for allowance

The following is an examiner's statement of reasons for allowance:

The instant invention is deemed to be directed to an unobvious improvement to a turbine bucket over U.S. Patent No. 6,499,950 which teaches a turbine bucket 30 including a bucket airfoil having a tip shroud 32, said tip shroud 32 having leading and trailing edges.

Regarding claim 1, the improvement comprises the leading edge having a profile substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 set forth in Table I wherein X and Y are distances in inches which, when connected by smooth, continuing arcs, define the leading edge tip shroud profile.

Regarding claim 6, the improvement comprises a trailing edge profile being defined substantially in accordance with values of X and Y in a Cartesian coordinate system at points 1-11 set forth in Table I wherein the X and Y values are distances in inches which, when the points are connected by smooth, continuing arcs, define the trailing edge profile of the tip shroud.

Regarding claim 11, the improvement comprises a leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consist of seven patents.

Erdmann (5,083,903) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Kreitmeier (5,290,144) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Harris et al. (6,254,345) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Herron (6,241,471) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Saito et al. (6,579,066) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Ito et al. (6,736,596) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Urban (6,805,530) is cited to show a turbine bucket including a bucket airfoil having a tip shroud, said tip shroud having leading and trailing edges but fails to definine respective leading and trailing edge profiles substantially in accordance with values of X and Y in a Cartesian coordinate system at points 12-20 and 1-11, respectively, set forth in Table 1, wherein the X and Y values are distances in inches which, when respective points 12-20 and 1-11 are connected by smooth, continuing arcs, define respective leading and trailing edge profiles of said tip shroud.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is (703) 308 8317. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on (703) 308 1044. The fax number is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK
October 26, 2004

Igor Kershteyn
Patent examiner.
Art Unit 3745

EDWARD K. LOOK
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10/27/04